

IN THE CLAIMS

This listing of the claims replaces all prior listings:

1. (Currently Amended) A cathode material, comprising:

a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and aluminum (Al), wherein,

a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and

the complex oxide is represented by a chemical formula $Li_a Mn_b Cr_c Al_{1-b-c} O_d$
 $Li_a Mn_b Cr_c M_{1-b-c} O_d$ (where a is one of 1.4, 1.5, 1.55 and 1.6 and the values of [[a]] b, c, and d are within a range the ranges of 1.0 < a < 1.6, 0.5 < b+c < 1, and 1.8 < d < 2.5 and M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum.)

2. (Cancelled)

3. (Currently Amended) A cathode material, comprising:

a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and aluminum (Al),

wherein,

a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and wherein

the complex oxide is represented by a chemical formula $Li_{1+e} (Mn_f Cr_g M_{1-f-g})_{1-e} O_h$
(where M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum, and e is equal to 0.4 and the values of [[e]] f, g and h are within a range the ranges of 0 < e < 0.4, 0.2 < f < 0.5, 0.3 < g < 1, f + g < 1 and 1.8 < h < 2.5.)

4. (Currently Amended) A method of manufacturing a cathode material, the cathode material comprising a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and

aluminum (Al), a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and the complex oxide is represented by a chemical formula $Li_a Mn_b Cr_c M_{1-b-c} O_d$ (where a is one of 1.4, 1.5, 1.55 and 1.6 and the values of b, c, and d are within the ranges of $0.5 < b+c < 1$, $1.8 < d < 2.5$ and M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum), the method comprising the step of:

mixing materials with ethanol or water as a dispersion medium to synthesize the complex oxide.

5. (Currently Amended) A battery, comprising:

a cathode;

an anode; and

an electrolyte,

wherein,

the cathode comprises a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and aluminum (Al), and a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and

the complex oxide is represented by a chemical formula $Li_a Mn_b Cr_c Al_{1-b-c} O_d$ $Li_a Mn_b Cr_c M_{1-b-c} O_d$ (where a is one of 1.4, 1.5, 1.55 and 1.6 and the values of [[a]] b, c, and d are within a range the ranges of $4.0 < a < 1.6$, $0.5 < b+c < 1$, and $1.8 < d < 2.5$ and M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum).

6. (Cancelled)

7. (Currently Amended) A battery, comprising:

a cathode;

an anode; and

an electrolyte,

wherein,

the cathode comprises a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and aluminum (Al), and a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and wherein

the complex oxide is represented by a chemical formula $\text{Li}_{1+\epsilon} (\text{Mn}_f \text{Cr}_g \text{M}_{1-f-g})_{1-\epsilon} \text{O}_h$ (where M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum, and ϵ is equal to 0.4 and the values of $[[\epsilon]]$ f, g and h are within a range the ranges of $-0 < \epsilon < 0.4$, $0.2 < f < 0.5$, $0.3 < g < 1$, $f + g < 1$ and $1.8 < h < 2.5$).

8. (New) A method of manufacturing a cathode material, the cathode material comprising a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and aluminum (Al), and a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and the complex oxide is represented by a chemical formula $\text{Li}_{1+\epsilon} (\text{Mn}_f \text{Cr}_g \text{M}_{1-f-g})_{1-\epsilon} \text{O}_h$ (where M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum, and ϵ is equal to 0.4 and the values of f, g and h are within the ranges of $0.2 < f < 0.5$, $0.3 < g < 1$, $f + g < 1$ and $1.8 < h < 2.5$), the method comprising the step of:

mixing materials with ethanol as a dispersion medium to synthesize the complex oxide.